

**REMARKS**

The title has been replaced.

Claims 1, 2, 3, 9, 10 and 11 have been amended. Claims 15 and 16 have been added.

The Examiner has objected to the Declaration. The Examiner is requested to reconsider the Declaration. The Declaration sets forth the Applicants' citizenship as required and clearly states "We have reviewed and understand the contents of the specification, including the claims."

The Examiner has objected to the title in the specification. The title has been revised consistent with the election of method claims. It is respectfully submitted that the specification is in standard American English. It is not a mere literal translation of a foreign document. The Examiner is requested to identify any specific instances where idiomatic English has not been used.

The Examiner has objected to the claims as narrative and indefinite. The claims have been amended to set forth with more precision the steps or elements of the independent claims. It is respectfully submitted that they are in proper form.

The Examiner has rejected claims 1 and 9 under 35 U.S.C. § 112, second paragraph.

As stated, claims 1, 2, 3, 9, 10 and 11 have been amended. It is the RF frequency of the irradiation pulse, not the pulse frequency, that selectively places magnetic moments in an excited state. The revised claims make this clear. The RF signal that generates heat in the coil during the pulse period depends upon the current in the coil, in other

words, depends upon the power input to the coil. The power does not affect the frequency of the coil but the tendency of the coil to heat. Those skilled in the art will understand that the frequency “not affecting measurement” are frequencies that will not interfere with the “precessional motion of the magnetic moments returning to the ground state.”

The claims have been amended to make clear that the different RF frequencies are applied in complementary periods of time. It is respectfully urged that the independent claims are not indefinite.

With regard to claims 2, 3, 10 and 11, the RF irradiation coil and/or detection coil can be in circuits that have resonance modes at more than one frequency as explained in the specification with reference to Figure 6(b). These claims have been amended to clarify this point. It is respectfully submitted these claims are not indefinite.

With regard to the Examiner’s statement in Paragraph 10, this application has nothing to do with cell phones or the “SAR established by the FDA.” It has to do with maintaining the temperature of RF irradiation coils and/or detection coils constant by maintaining the power input to the coils as constant as possible. As explained carefully with reference to Figures 11(a) to 11(d).

The Examiner has rejected claims 1-4 and 9-11 under 35 U.S.C. § 102(b) as anticipated by Hanawa, U.S. Patent No. 5,343,149. The Hanawa patent does not teach applying RF power during complementary periods of time nor does it teach applying RF power of a frequency not affecting measurement of an NMR signal. The Examiner makes reference to the Abstract of Hanawa. It should be noted that the “RF pulse so as to set a desired flip angle of a spin” is an RF pulse at a frequency that affects measurement of the

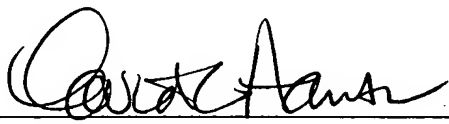
Application No. 10/821,189  
Paper Dated October 17, 2005  
Reply to Office Action dated July 25, 2005  
Attorney Docket No. 116-043810

NMR signal. That is its very purpose. The remaining pulse mentioned in the Abstract is the NMR signal itself.

In view of the foregoing amendments and remarks, it is urged that this case is now in condition for allowance.

Respectfully submitted,

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